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## Montessori's mediation of meaning: a social semiotic perspective

by

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### Preface

I have been unusually fortunate to be a member of two remarkable intellectual communities, each one emerging from the work of an inspiring scholar.

As a Montessori teacher I belong to an international community of educators motivated by an intense respect for, and profound understanding of, the contribution children make to our shared humanity. This community works with a rich and expansive approach to pedagogy, an approach first described by Dr Maria Montessori.

As a teacher linguist, specialising in systemic functional linguistics, I belong to an international community of linguists who share a commitment to theoretical and social integrity. This community is inspired by a rich and expansive approach to the study of meaning, a social semiotics, first described by Professor Michael Halliday.

Writing this thesis has provided me with an opportunity to bring together the rewards membership of these two communities has bestowed. I sincerely hope the final result does justice to such a distinguished provenance.

### Acknowledgements

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I would also like to acknowledge Ms Elizabeth Hall (most recently of the Montessori Institute, Denver, Colorado) and the late Signor Camillo Grazzini (Fondazione Centro Internazionale di Studi Montessoriani, Bergamo, Italy), the Association Montessori Internationale teacher trainers to whom I am forever indebted. Their masterful presentations and inspiring, yet always practical, interpretations of Montessori pedagogy laid the foundation that made this study possible. Any limitations in the interpretation of Montessori pedagogy in this thesis, however, are my own.

It is impossible to name all the many friends and colleagues from the community of systemic functional linguists who have provided intellectual and moral support. The genuine interest they have shown in this project and the sharing of so many stimulating ideas and wise suggestions have been enormously valuable and appreciated more than I can say. In particular, I would like to thank:

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Completing such a project has only been possible with a great deal of support and understanding from family and friends. My most grateful thanks is extended to all of them, with special mention to my parents for their very practical help, including the use of their home in country Queensland as a retreat during the final stage of thesis-writing.

As Dr Montessori would expect, this thesis is dedicated to the children and young people who, everyday around the world, are working with so much energy to construct the future, reminding us all of our responsibility to provide them with the best materials we can offer. In my world, the individuals engaged in this most important of all work include my nieces and nephews: Rebecca, Finn, Lachlan, India, Toby and Harry.

Most especially, this thesis is dedicated to all the wonderful children in my 'six to nine' class at Montessori East (Bondi NSW) between 2002 and 2006. What I learned watching these children use the Montessori materials lies at the heart of this study.

### **Photographs**

I wish to acknowledge the following organisations, websites and individuals for the photographs used in this document:

Government Printing Office collection, State Government Archives PICMAN database, State Library of New South Wales for the photographs used in Illustrations 1.1 and 7.3, and for the black and white photograph in Table 7.7

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Nienhuis Montessori online catalogue for the photographs used in Illustrations 6.4; 6.7; 6.10; 6.11; 6.12; 6.14; 7.2; 7.7 and 7.9. <http://montessori.nienhuis.com/montessori\_en\_homepage.htm> [accessed November and December 2006]

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### Style note

This thesis includes quotations in which the pronouns 'he' or 'it' are used as a generic reference to 'the child'. Such usage represents either the English convention of an earlier era or the direct translation of grammatical gender as used in a language other than English.

### Abstract

The distinctive objects designed by Dr Maria Montessori as the centrepiece of her approach to pedagogy are the topic of this study. The Montessori approach to pedagogy, celebrating its centenary in 2007, continues to be used in classrooms throughout the world. Despite such widespread and enduring use, there has been little analysis of the Montessori objects to evaluate or understand their pedagogic impact.

This study begins by outlining the provenance of the Montessori objects, reaching the conclusion that the tendency to interpret them from the perspective of the progressive education movement of the early twentieth century fails to provide insights into the developmental potential embodied in the objects. In order to appreciate that potential more fully, the study explores the design of the objects, specifically, the way in which the semiotic qualities embodied in their design orient children to the meanings of educational knowledge.

A meta-analytic framework comprising three components is used to analyse the semiotic potential of the Montessori objects as educational artefacts. First, Vygotsky's model of development is used to analyse the objects as external mediational means and to recognise the objects as complexes of signs materialising educational knowledge. In order to understand how the objects capture, in the form of concrete analogues, the linguistic meanings which construe educational knowledge, systemic functional linguistics, the second component of the framework, is used to achieve a rich and detailed social semiotic analysis of these relations, in particular, material and linguistic representations of abstract educational meanings. Finally, the pedagogic device, a central feature of Bernstein's sociology of pedagogy, is used to analyse how the Montessori objects re-contextualise educational knowledge as developmental pedagogy. Particular attention is paid to the Montessori literacy pedagogy, in which the study of grammar plays a central role.

The study reveals a central design principle which distinguishes the Montessori objects. This principle is the redundant representation of educational knowledge across multiple semiotic modes. Each representation holds constant the underlying meaning relations which construe quanta of educational knowledge, giving children the freedom to engage with this knowledge playfully, independently and successfully.

The conclusion drawn from this study is that the design of the Montessori objects represents valuable educational potential which deserves continued investigation, as well as wider recognition and application. To initiate this process, the findings in this study may provide insights which can be used to develop tools for evaluating and enhancing the implementation of Montessori pedagogy in Montessori schools. The findings may also be used to adapt Montessori design principles for the benefit of educators working in non-Montessori contexts, in particular, those educators concerned with developing pedagogies which promote equitable access to educational knowledge.